

Remarks

Claims 1-39 are pending.

Allowable Subject Matter

Claims 15-16 and 31-32 were found to be allowable subject to overcoming the Section 101 rejection. As noted below, the Specification has been amended to overcome the Section 101 rejection.

Claim Rejections Under Section 101

Claims 17-34 were rejected under Section 101 as being directed to non-statutory subject matter because the definition of a computer readable medium in the Specification references media that can "transmit" programs or data as one example of a computer readable medium. The Examiner asserts, therefore, that Claims 17-34 claim a signal.

Applicant does not acquiesce in the rejection -- Claims 17-34 do not claim a signal per se and, therefore, are not properly rejected under Section 101. The fact that a signal might be covered by Claims 17-34 does not render those claims non-statutory. Nevertheless, to expedite prosecution of this application, the Specification has been amended to delete reference to media that can transmit programs or data as one example of a computer readable medium.

Thus, the rejection under Section 101 is felt to be moot in view of this amendment to the Specification.

Claim Rejections Based On Moore -- Perceptually Uniform Adjustment

Claims 1, 3, 5, 7, 9, 12-14, 17, 19, 21, 23, 25, 28-30 and 33-39 were rejected under Section 102(e) as being anticipated by Moore 20040135790. Claims 2, 4, 6, 8, 10, 11, 18, 20, 22, 24, 26 and 27 were rejected under Section 103 as being obvious over Moore in view of Gruzdev 2003002095. The rejections are all based on the assertion that Moore teaches making a perceptually uniform color adjustment. As detailed below, this assertion is not correct.

Claim 1 recites making a perceptually uniform adjustment to the first color in the image. Each of the other independent claims (Claims 5, 9, 12, 13, 17, 21, 25, 28 and 29) recite a similar limitation.

"Perceptually uniform" is specially defined in the Specification at paragraph 0022. The Examiner is required to apply the Applicant's definition of a term in the claims when

that term is specially defined in the Specification. MPEP 2111.01.IV. "Perceptually uniform" means that the perceived change in a color is directly proportional to the increment of change selected. The Specification reads in pertinent part as follows:

As used in this document, "perceptually uniform" means that the perceived change in a color is directly proportional to the increment of change selected to adjust the color. Hence, the change from the original color image printed or displayed in step 74 to the adjusted color image printed or displayed in step 80 will be perceived in the same proportion as the adjustment selected in step 78. For example, if the user selects an adjustment to make the green apples in the fruit image of Fig. 7 more green by an increment of four, then the apples in the adjusted color image will appear more green by a factor of two over an increment of two and more green by a factor of four over an increment of one.

Moore does not teach that the perceived change in a color is directly proportional to the increment of change. The term "perceptually uniform" does not appear in Moore. Moore also does not mention proportionality between an increment of color change selected by a user and the perceived change in color. Rather, Moore teaches using memory colors to adjust the color of an image according to a comparison vector that reflects the difference between the existing image color and the desired image color. There is no teaching or even any suggestion that the comparison vector is computed to make the perceived change in color proportional to the increment of change selected by the user. The pertinent passages from Moore are set forth below (including those relied on by the Examiner).

[0028] A color palette selection tool 318 is used by a system operator to associate a memory color from the memory color palette 310 with the selected region 218 of the image 110. This selection or association indicates to the image-processing software 210 a color or chrominance the operator expects or prefers for the selected region 218. This indicated preference is used by the image-processing software 210 to correct the color cast 118 of the image 110.

[0029] The colors of the memory palette 310 and the colors of the image 110 are described in terms of a convenient color space. For example, the colors of the color palette 310 are described within or made available to the image-processing software 210 in terms of an $L^* a^* b^*$ color space defined by a lightness parameter L^* and two chrominance parameters a^* and b^* . If necessary, the image-processing software 210 translates the colors of the image from some other descriptive form into the convenient color space (e.g.; $L^* a^* b^*$).

[0032] The image-processing software 210 compares the average color value of the pixels of the selected region 218 to the selected memory color 322. For example, the image-processing software 210 calculates or determines a chrominance difference, error, or comparison vector 418. The chrominance comparison vector 418 is defined by differences in the a^* and/or b^* values of the average color vector 414 of the pixels in the selected region 218 and the selected memory color 322. A total difference, error, or comparison vector 422 is defined by differences in the L^* , a^* , b^* values of the average color 414 of the pixels in the selected region 218 and the selected memory color 322.

[0033] When correcting the color cast of an image, it is often preferable to adjust only the chrominance of the image. For example, when an object in an image is associated with a neutral memory color, it is usually desirable to preserve the luminance of the object and shift only the chrominance. Therefore, it is usually preferable to use the chrominance comparison vector 418 when adjusting or shifting the color values of the pixels of the image 110 and disregard the total difference, error, or comparison vector 422.

[0034] For example, referring to FIG. 5, colors 514 of pixels of the image 110 are shifted by an amount and in a direction defined by the chrominance comparison vector 418. The shifting yields corrected colors 518.

[0035] Referring to FIG. 6, the corrected colors 518 result in a corrected image 610. The color cast 118 is no longer present in the corrected image 610. The corrected image 610 can be stored for use in documents. Alternatively, the corrected image 610 can be rendered. For example, the corrected image 610 can be rendered by a xerographic print engine. Alternatively, the corrected image 610 can be rendered by other rendering devices, such as, but not limited to, for example, ionographic, lithographic, photographic and ink jet print engines, or the image can be displayed on electronic displays such as a cathode ray tube (CRT) or a liquid crystal display (LCD).

Conspicuously absent from these passages is any mention of a specific relationship in which an increment of change represented by a memory color selection is rendered visually proportional in the display or print. Indeed, there is no teaching at all in Moor that a memory color may be changed incrementally. On the contrary, Moore teaches only that selecting a memory for application to a selected region of an image makes the selected region in the image the same color as the selected memory color. There is no teaching of an incremental change in general, and more specifically, that any such incremental change is rendered proportionally in the display or print.

If the Examiner disagrees, then she is respectfully requested to specifically point out **and explain** those passages in Moore that teach a "perceptually uniform"

adjustment as that term is specially defined in the Specification. Absent such a showing, the rejections based on Moore should be withdrawn.

All pending claims remain in condition for allowance.

The foregoing is believed to be a complete response to the pending Office Action.

Respectfully submitted,

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